TROPICAL RAINFALL MEASURING MISSION

December 21, 1998 - December 27, 1998
DOY 355 - 361
Day of Mission 389 - 395

TRMM MISSION OPERATIONS

- TRMM is flying in the -X Forward direction as of 98-353, at 00:18:17z.
- The next Yaw maneuver is scheduled for January 19 (99-019).
- The next Delta-V maneuver is scheduled for December 29 (363) using the ISP thrusters.
- The Beta angle range for DOY 362 to 003 is -36.4° to -57.7°.

TRMM SUBSYSTEM OPERATIONS

Attitude Control System

Delta-V maneuver #66 was successfully conducted on 98-359 at 17:29:20z and 18:17:00z, for durations of 47 and 23 seconds, respectively, using the ISP thrusters. The off-modulation of the -Pitch thruster (#6) was 35.9% and 34.8%, respectively (64.1% and 65.2% on time). The remaining fuel is 774.69 kg and the final apogee and perigee height is 354.94 km x 347.698 km.

Flight Data System (FDS)/Command & Data Handling (C&DH)

The Frequency Standard continues to drift in the negative direction. The frequency remains x741 with a current drift rate of -5.68 μs/hr. The UTCF remains at 31535997.873272 sec with a current drift value of -625 μs.

Q-Channel Restarts occurred on 98-359 at 07:37 and on 98-361 at 08:31.

Three Software Bus errors were caused by Invalid Stream Ids from XI on 98-355 17:10z (TMI).

A Software Bus error was caused by an Invalid Stream Id from XS on 98-356 05:00z (VIRS).

Reaction Control Subsystem (RCS)

The RCS subsystem performed nominally during this period. See the ACS section for specific Delta-V information.

Power Subsystem

The Power subsystem operated nominally during this period.

Electrical Subsystem

The Electrical subsystem operated nominally during this period.

Thermal Subsystem

The Thermal subsystem operated nominally during this period.

Deployables Subsystem

The Deployables subsystem performed nominally during this period.

RF/Communications Subsystem

The RF/Communications subsystem has performed nominally during this time.

SPACECRAFT INSTRUMENTS

CERES

CERES is currently powered off and CERES personnel are developing a plan for operating the instrument with the +15 V DAA anomaly. Plans are being discussed for a possible power-on scenario which would occur in mid-January.

LIS

LIS performed nominally during this time period.

PR

PR performed nominally during this time period.

TMI

TMI performed nominally during this time period.

VIRS

VIRS performed nominally during this time period.

VIRS 8.0 W heater was powered off and the 15.0 W heater was powered on at 01:52z on 98-358.

GROUND SYSTEM

Y2K compliant string 1 is now the primary string again, as of 98-356. String 2 will be upgraded after the New Year. In preparation of a final GTAS upgrade plan, the GTAS machine which is on string 2 is now connected to the string 3 home disk and GTAS software. As a result, string 2 can be converted without interfering with GTAS operations until GTAS is ready. Y2K compliant GTAS is in the SOTA Bay, and is being fully tested prior to installation in the MOC.

The MOC was unable to receive 24hr level0 files since 98-356. Troubleshooting is required to configure the system so that files can still be received while running GTAS from string 3. All files were received after temporarily reconfiguring the GTAS workstation back to string 2.

Memory upgrades of 128 MB of RAM were installed on string 1 workstations. These upgrades were made to try and improve the slower performance which resulted from the Y2K upgrade.

A WSC Chain Failover (Event #79) due to an integrated receiver hang resulted in 12 min 50 sec of no telemetry at the MOC (98-359; TDW; orbit 6195). All data was recovered the following event.

EVENT REPORTS

#79: WSC Chain Failover (see Ground System section).

Generic Late Acquisition Reports (for TTRs 19639)

No generic late acquisitions occurred during this week.

NEW ANOMALIES

No new Anomaly Reports were written during this week.

RECURRING OPEN ANOMALIES

No open Anomalies occurred during this week.

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